

Review of Transportation Performance for I-5 Build Concepts

AGENDA

- Purpose
- Modeling/Concept Overview
- Review of Performance Measures
- Break
- Review of Traffic Simulation
- Next Steps

Modeling/Concept Overview

- Modeling work group
- Development of post-processed demand volumes- group review
- Design refinement based on screening level review of traffic demands

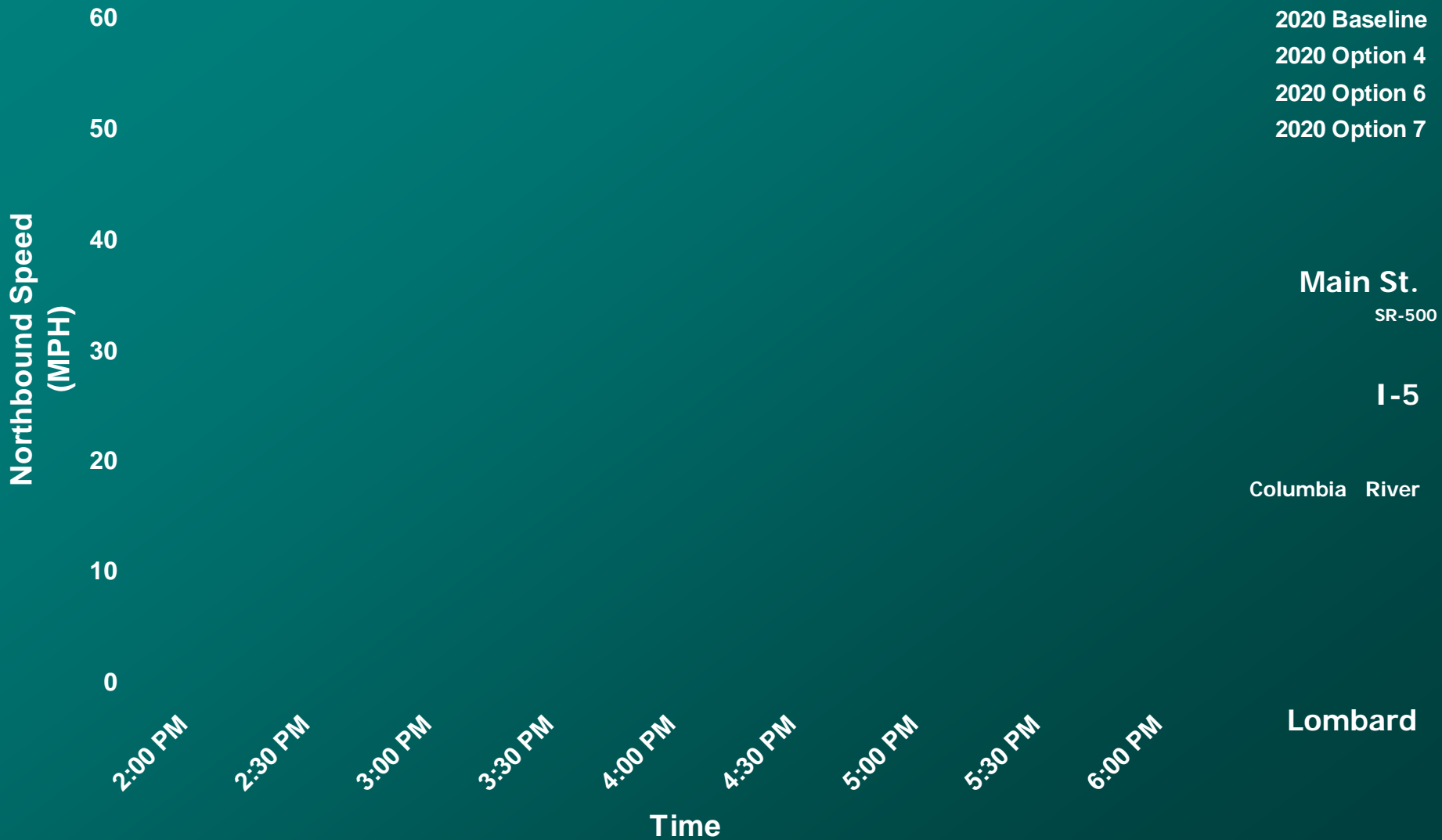
Initial Findings & Design Refinements

- Must split SR 500 traffic to mainline and CD
- Need to balance access and facility capacity
- O-D patterns indicated how to braid ramps in certain cases
- Look for opportunities to eliminate short distance trips from the freeway and CD system
- Reconsider which ramps merge and which add lanes to the freeway

Review of Performance Measures

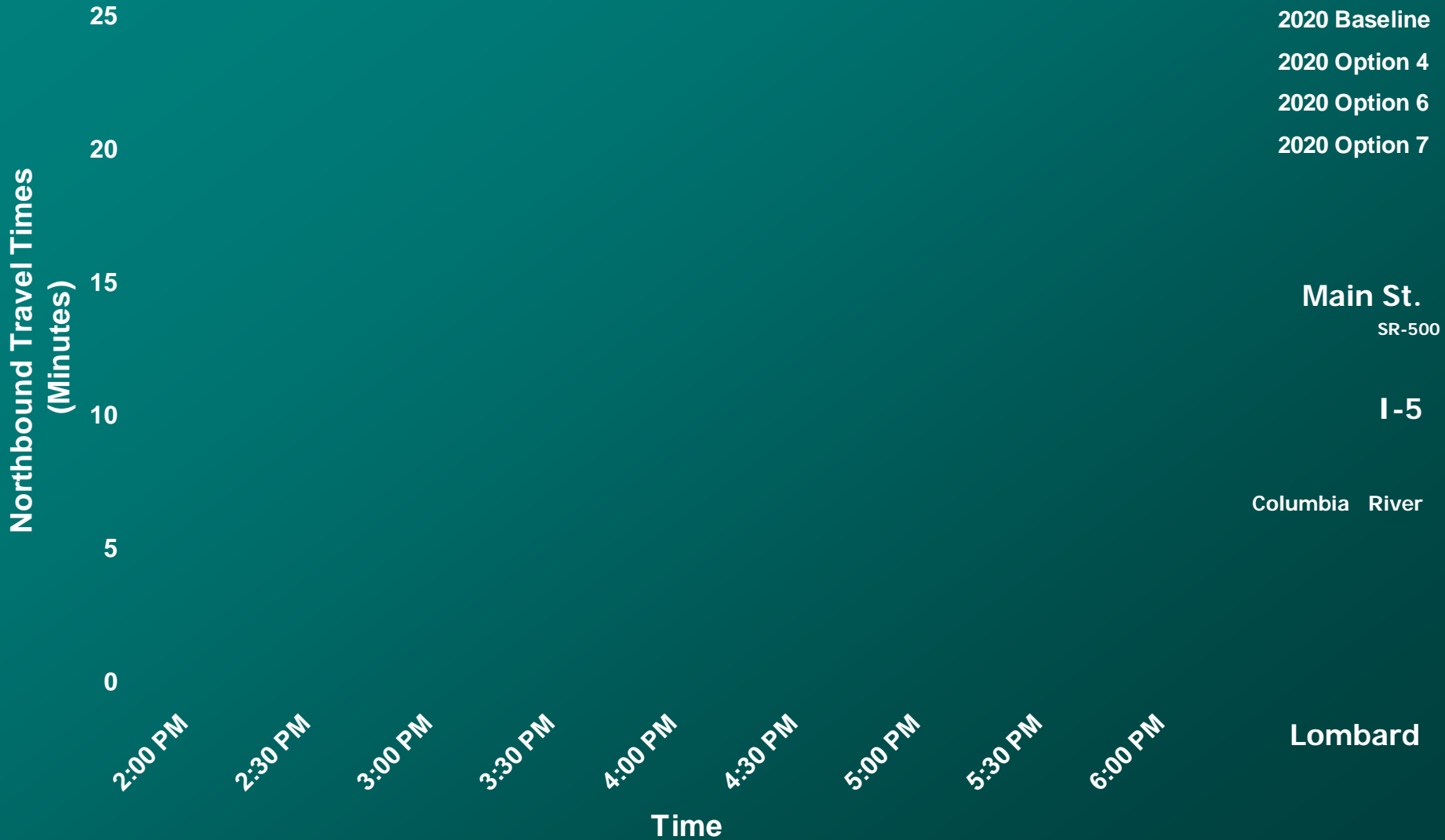
- Modeling work group selected MOES
 - Travel Times
 - Speed
 - Delay (mainline and ramps)
 - Queuing
 - Unserved Demand

Average Speed I-5 Northbound - Lombard to Main St.



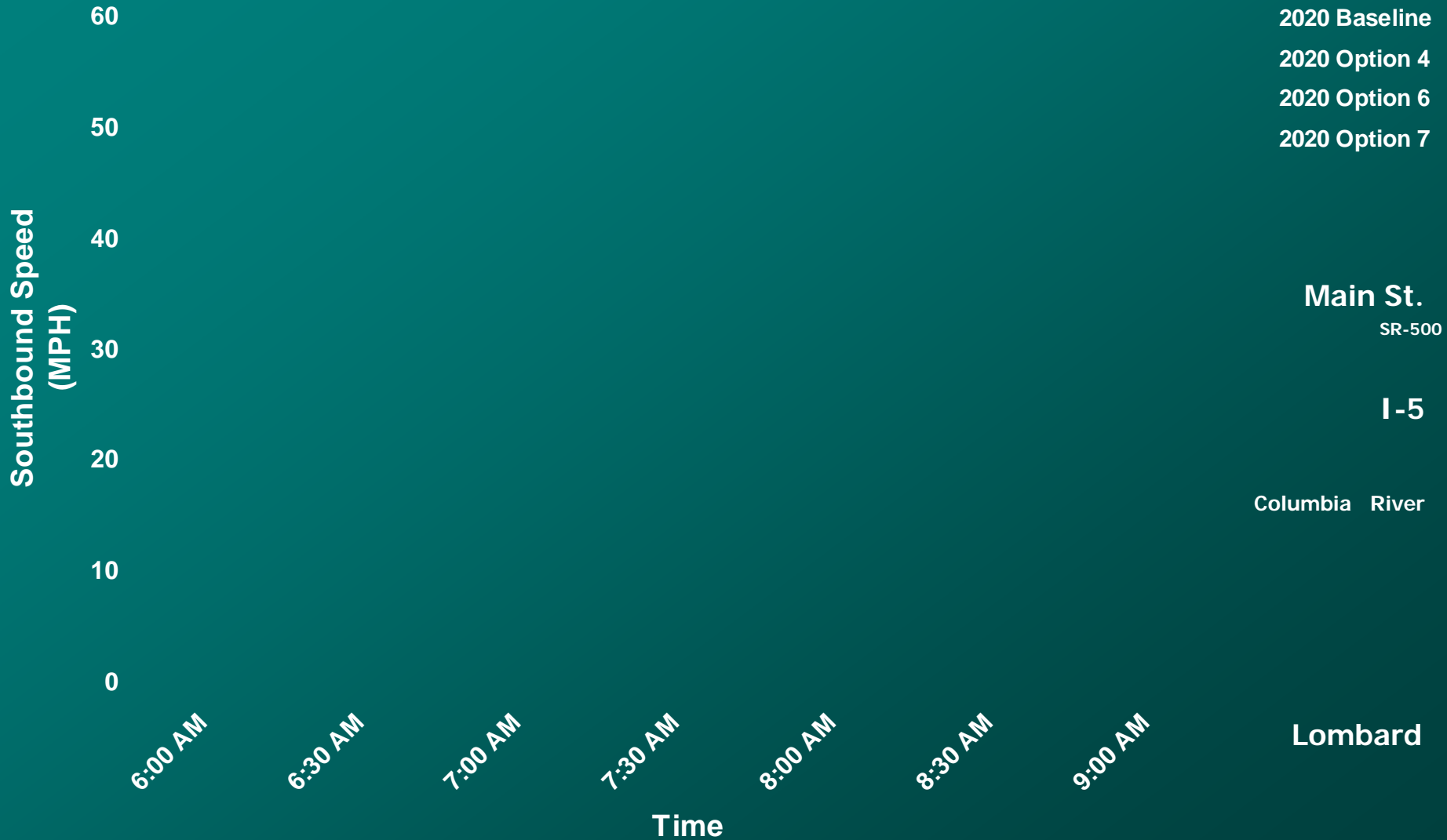
Travel Time

I-5 Northbound - Lombard to Main St.



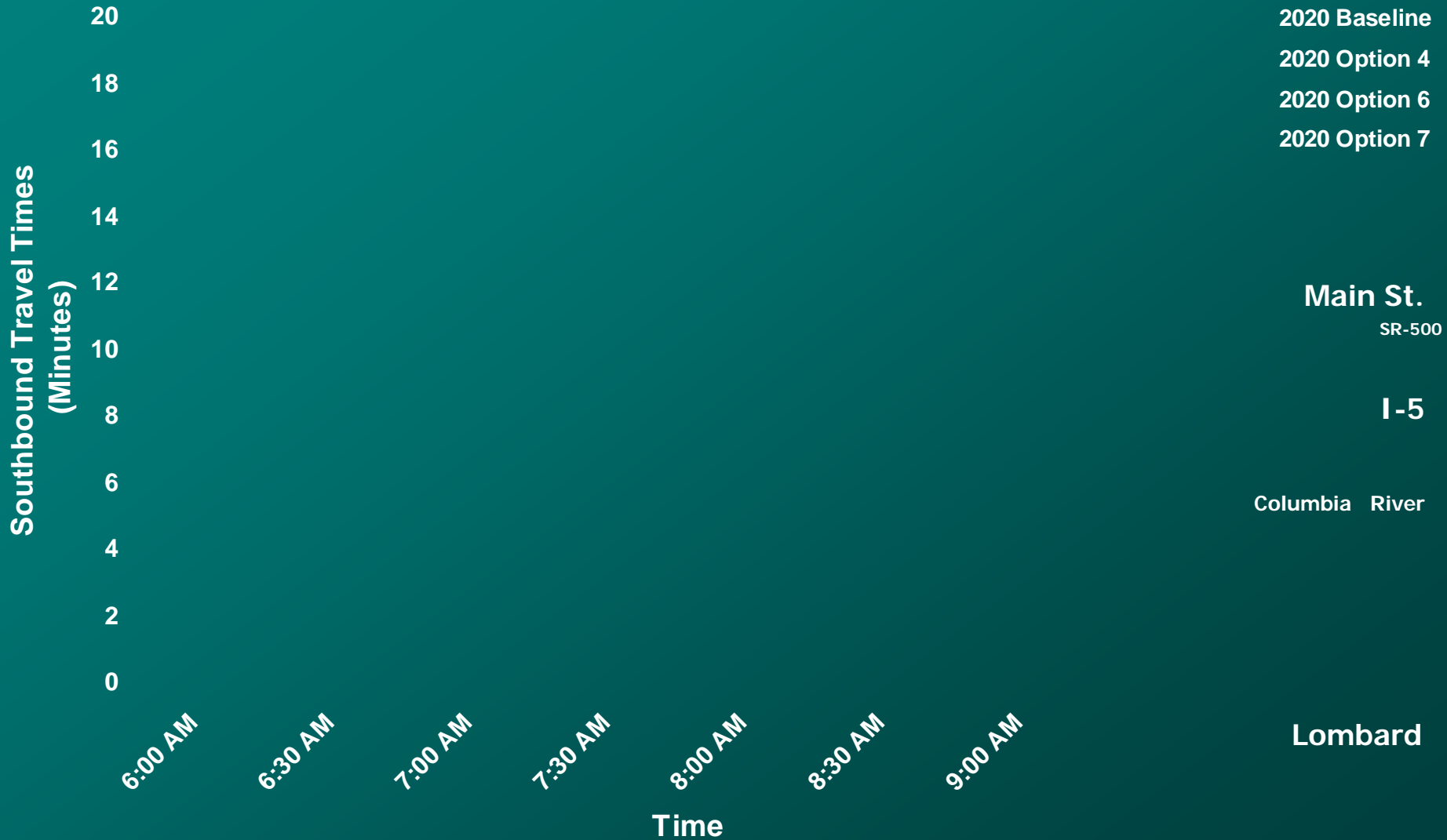
Average Speed

I-5 Southbound - Main St. to Lombard

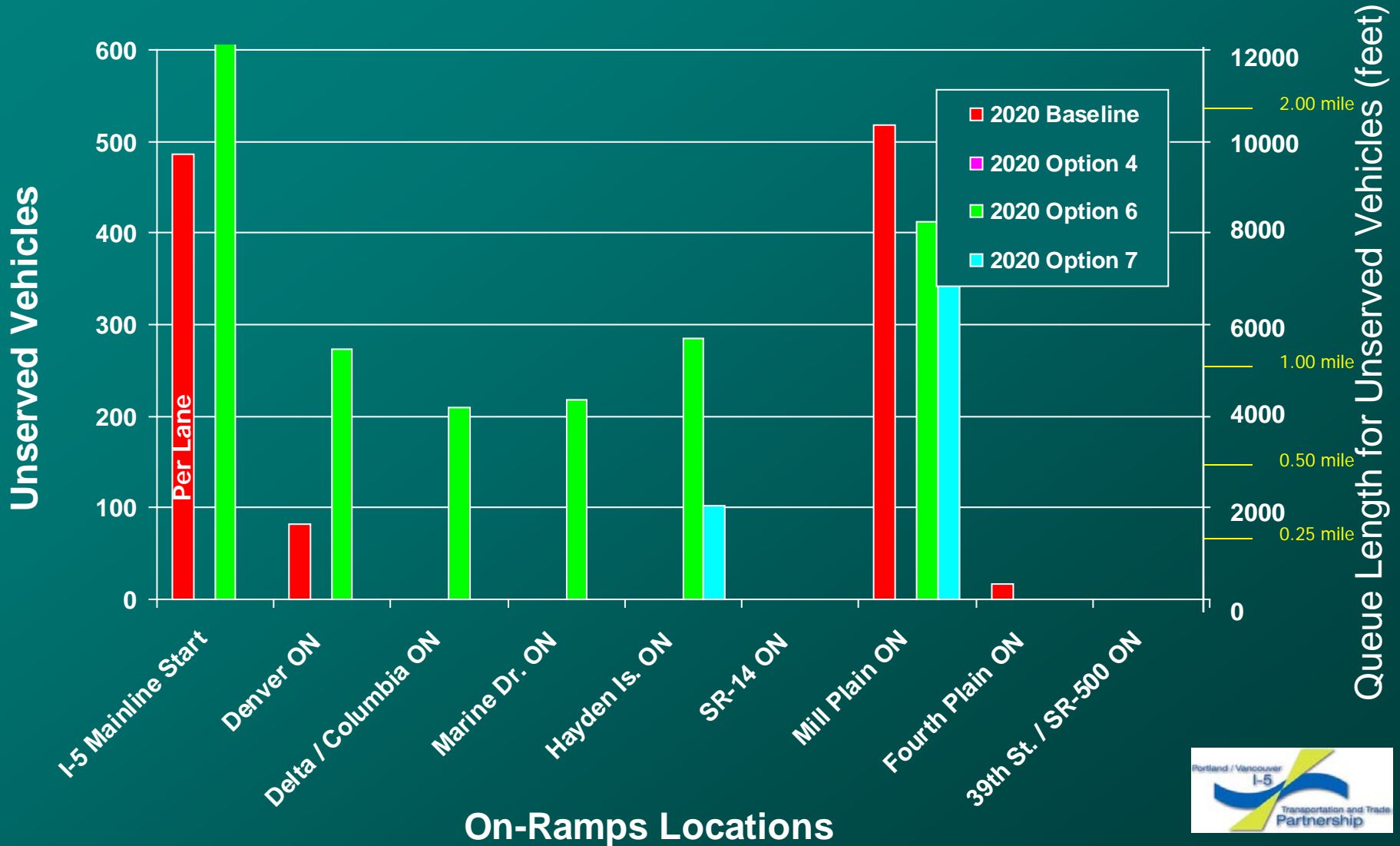


Travel Time

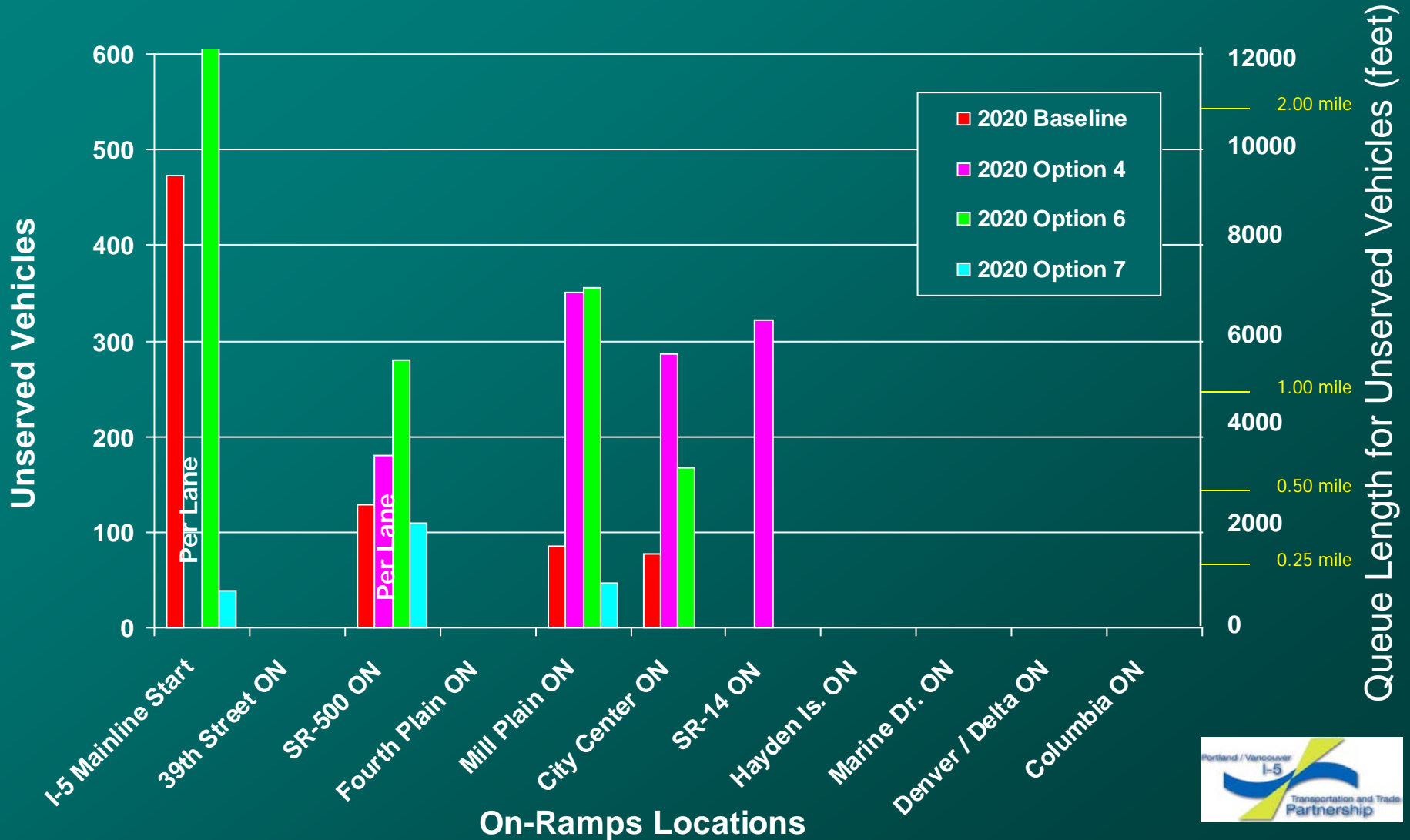
I-5 Southbound - Main St. to Lombard



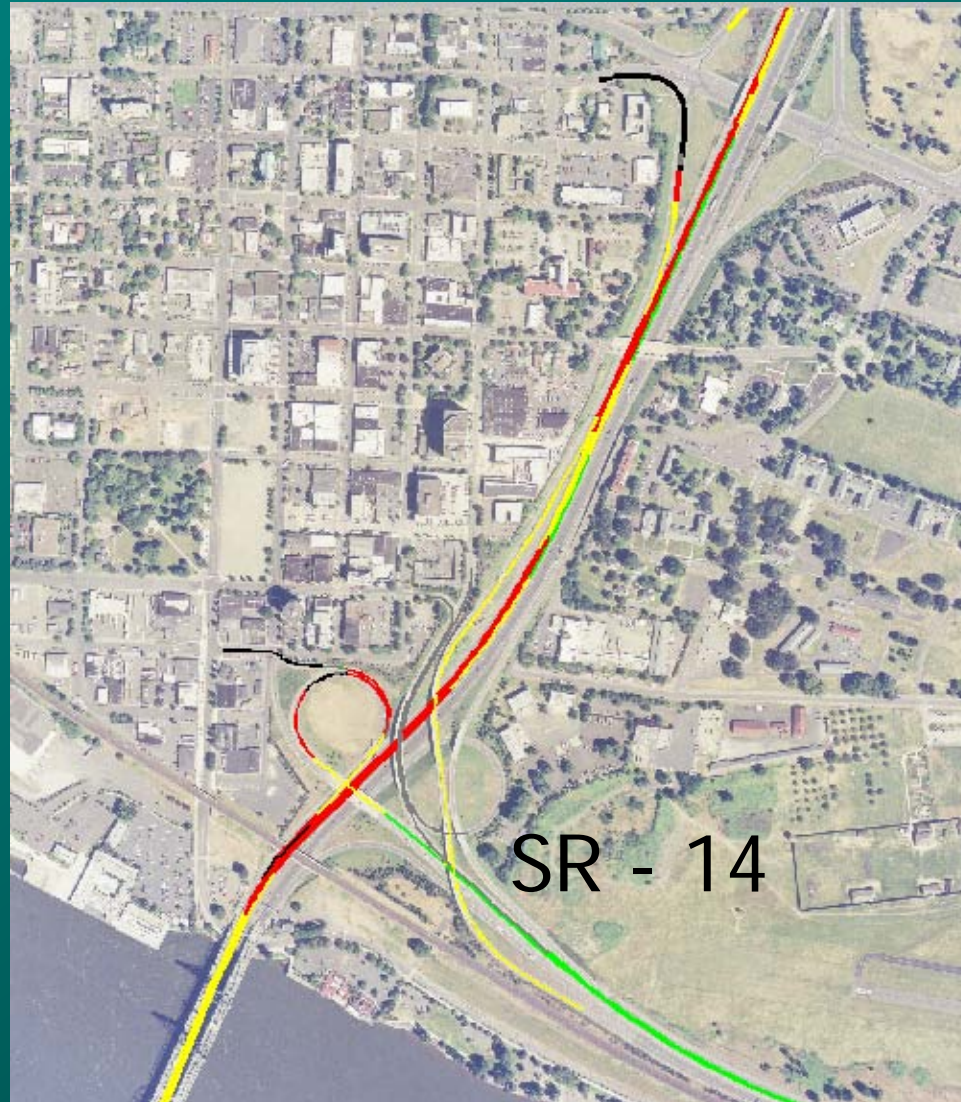
On-Ramps Impact I-5 Northbound (PM Peak Hour)



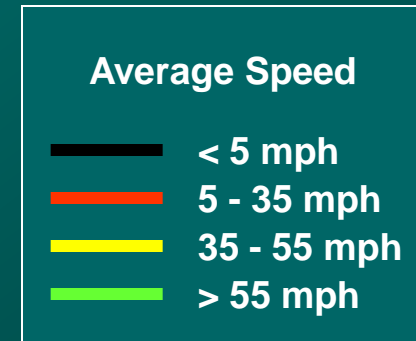
On-Ramps Impact I-5 Southbound (AM Peak Hour)



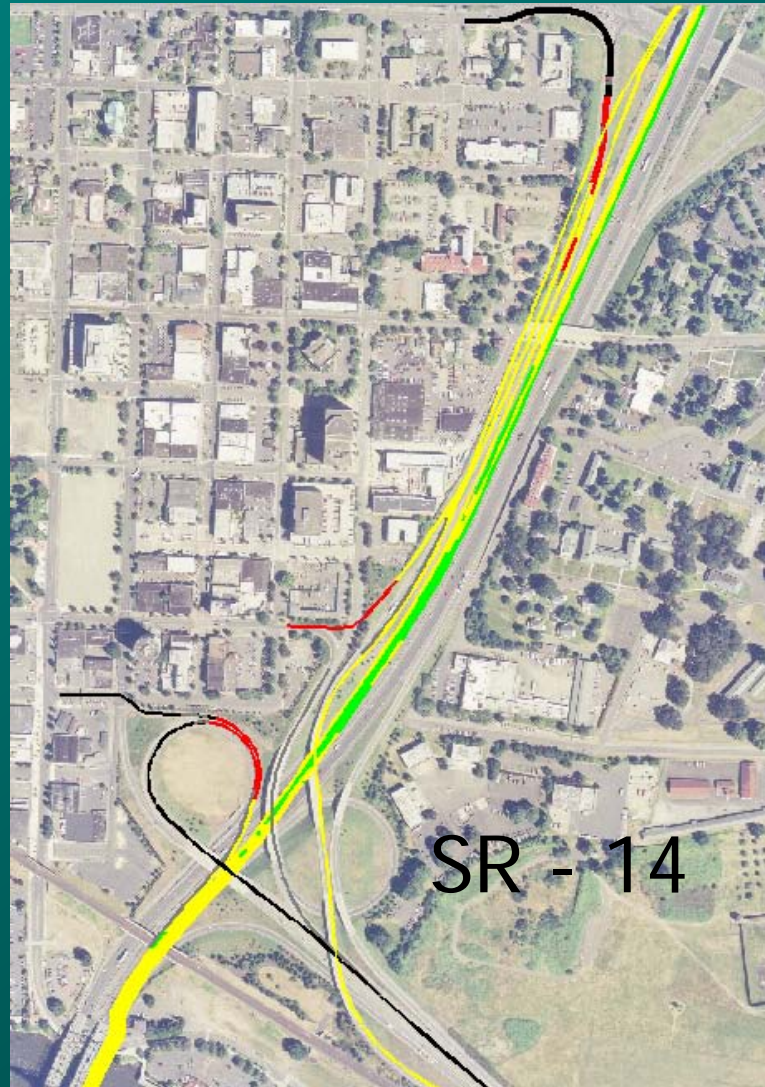
Baseline Average Speed Southbound (AM Peak Hour)




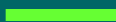


Baseline Average Speed Southbound (AM Peak Hour)

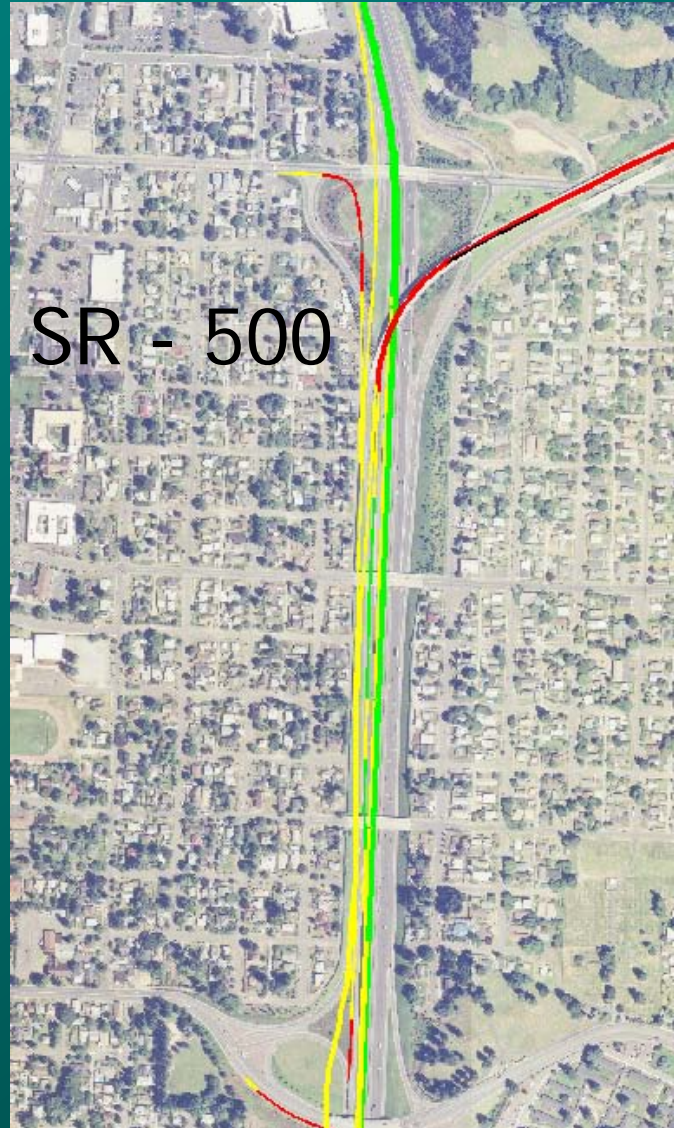


Option 4 Average Speed Southbound (AM Peak Hour)



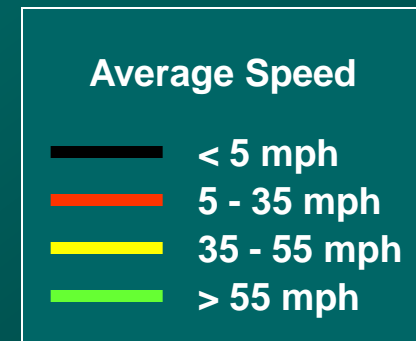
Average Speed	
	< 5 mph
	5 - 35 mph
	35 - 55 mph
	> 55 mph

Option 4 Average Speed Southbound 6:00-7:00 AM (Peak Hour)

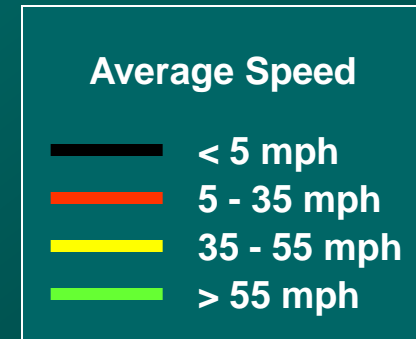


Average Speed	
—	< 5 mph
—	5 - 35 mph
—	35 - 55 mph
—	> 55 mph

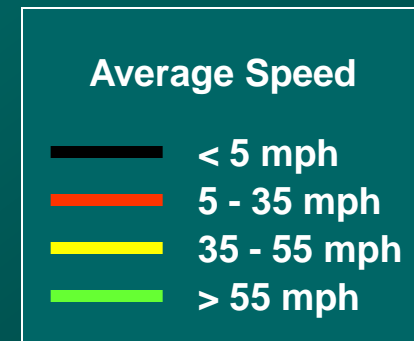
Option 4 Average Speed Southbound 7:00-8:00 AM (Peak Hour)



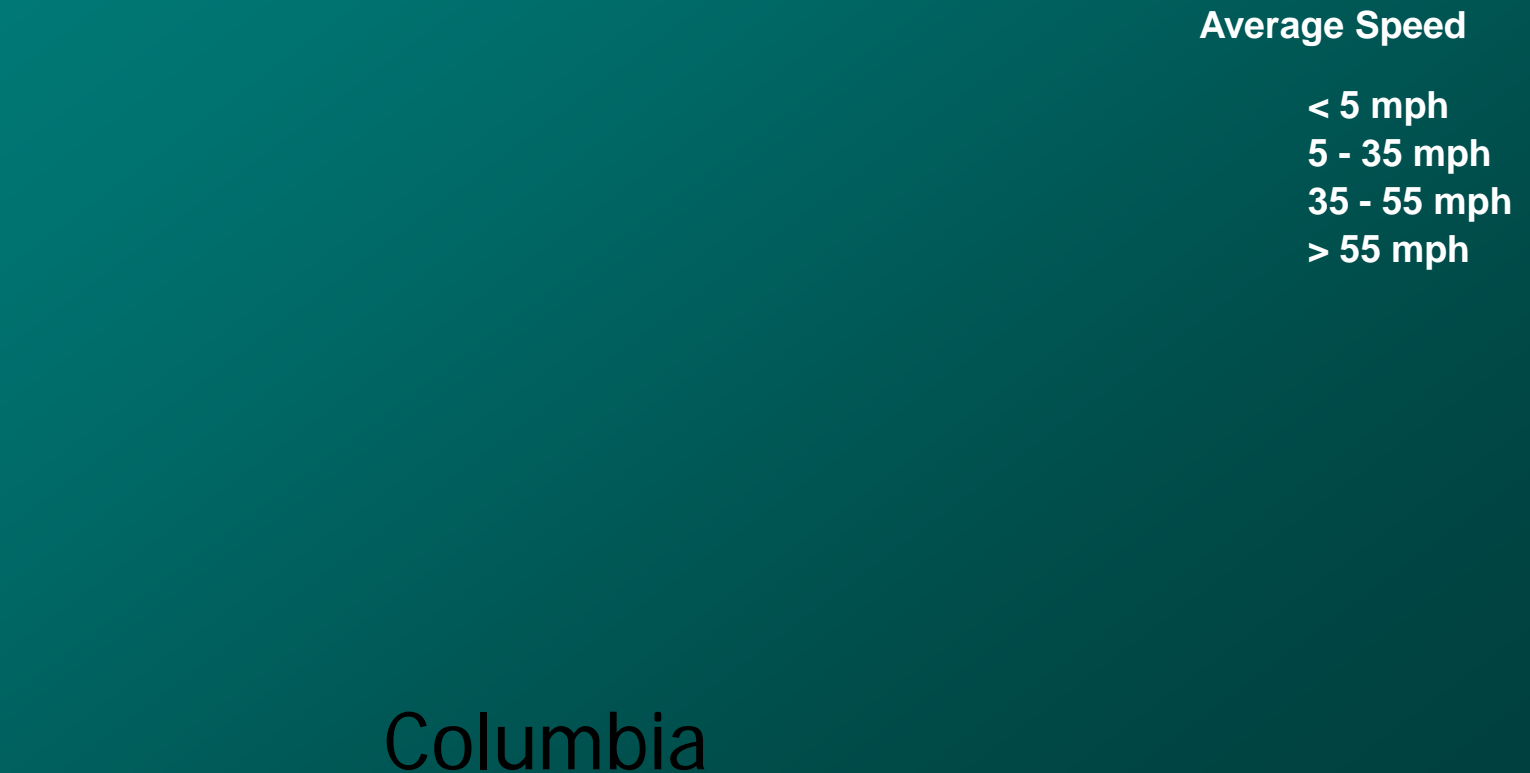
Option 4 Average Speed Southbound 8:00-9:00 AM (Peak Hour)



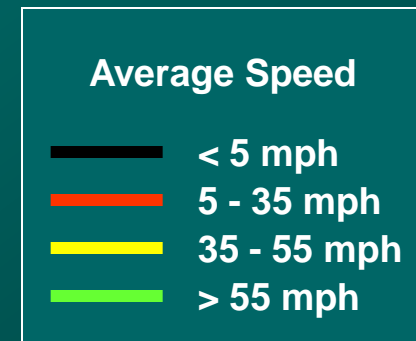
Baseline Average Speed Northbound (PM Peak Hour)



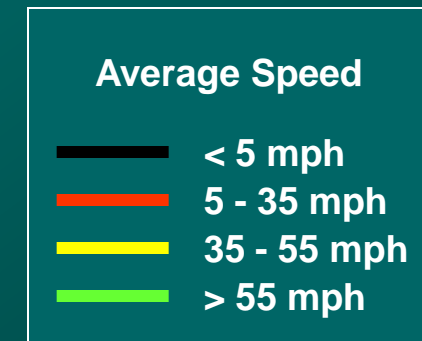
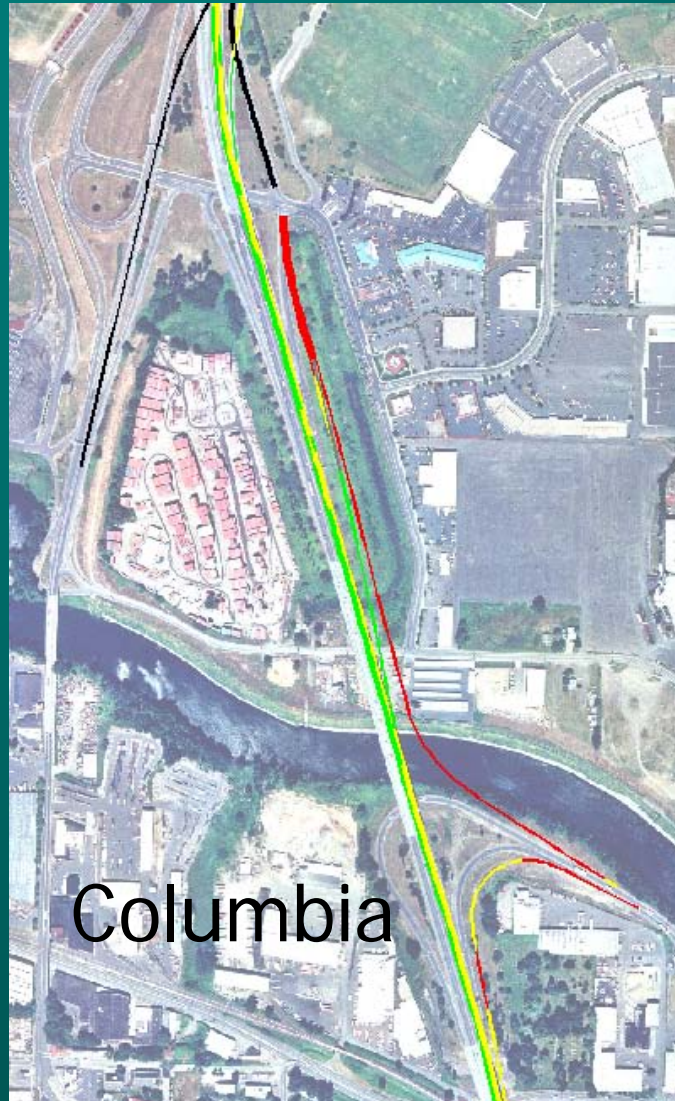
Baseline Average Speed Northbound (PM Peak Hour)



Option 4 Average Speed Northbound (PM Peak Hour)



Option 4 Average Speed Northbound (PM Peak Hour)



Basic VISSIM Model Parameters

- HOV % provided by Metro (30% NB, 27% SB)
- HOV operation hours (7-8 am SB, 3-6 pm NB)
- Ramp meter rates provided by Metro
- Ramp meter hours (6-9 am SB, 3:30-6 pm NB)
- Origin-Destination patterns provided by Metro
 - Specific to SOV, HOV, & Truck
- Grades of +4% provided by design team

Basic VISSIM Model Parameters

- Truck % provided by Metro
 - 7% on mainline NB and SB
 - 2% for NB on-ramps during peak
 - SB Columbia Blvd. on-ramp at 15%
 - SB Marine Drive and Victory Blvd. on-ramps at 10%
- We did not model off-peak operations
- Model corridor focused to Bridge Influence Area (BIA)- Columbia Blvd. to SR 500